

[GNFAC Avalanche Advisory for Sun Dec 18, 2011](#)

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 18 at 7:30 a.m. This advisory is sponsored by Cooke City Motorsports and Yamaha. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday was a warm day with mountain temperatures reaching above freezing. Under a slight inversion, temperatures at 5 a.m. are in the high 20s as westerly winds blow 20-30 mph in the north and 10-20 mph in the southern mountains. A cold front drops in later this afternoon which will bring a small, but welcome shot of snow. I'm expecting 1-2 inches tonight as temperatures drop into the teens with west to northwest winds blowing 15-25 mph.

Snowpack and Avalanche Discussion

The Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone:

Sometimes when I'm trying to figure out how to describe an avalanche problem, I think of what I might tell my mom. If my mom was a backcountry skier I'd give her a few key pieces of information to keep her extra safe:

1. Snowpacks with two feet of snow or less are very weak and consist mainly of facets. I'd encourage her to break out her fatty skis, watch for rocks and have fun. The snowpack is just one big weak layer, but without a slab of snow it is relatively stable. I'd encourage her to watch [last week's video clip](#) showing this.
2. If mom was itching to go where the snow was deeper, like in the northern Gallatin Range, I would warn her about the weak snow near the ground and also about another layer near the surface ([photo](#)). The one at the ground is our primary avalanche concern since it is still breaking clean in a few of our stability tests. Mark found this on Friday on his way to repair the Hyalite weather station and [spoke about it in this video clip](#).

In the last seven days we dug pits on Mt. Ellis, Flanders drainage, around Moonlight Basin, Bacon Rind, Taylor Fork, and West Yellowstone ([snowpit profiles](#)). Along with reports from ski patrols, we are finding a similar snowpack structure of weak snow at the ground with surface hoar and other facets buried a few inches deep by Wednesday and Thursday's snowfall (6-8 inches). Near Beehive Basin on Friday, skiers triggered a small avalanche on these facets that formed at the surface, our first human triggered slide in weeks. I'd warn mom about this too and also make double sure she had fresh batteries in her beacon and recently practiced with it. If we ever get big snows the avalanche danger will shoot through the roof and I'll want her to be on top of her game.

For today, the difference between a Moderate and Low avalanche danger is the difference between a slope having a slab of snow or not. Slopes with more than two feet of snow have a [MODERATE](#) avalanche danger, while those less than two feet thick have a [LOW](#) danger.

The mountains around Cooke City:

Eric and Mark are in Cooke City investigating the snowpack and found it deeper and stronger than any other range in our advisory area. They can still find weaker snow at the ground but concluded it would take a large

load or finding a steep slope with an uncharacteristically shallow snowpack to trigger an avalanche. Without any signs of instability and snowpits indicating mostly stable conditions, for today the avalanche danger is rated MODERATE on all slopes steeper than 35 degrees and LOW elsewhere.

Eric will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations, drop us a line at mtavalanche@gmail.com or call us at 587-6984.

EVENTS/EDUCATION

To check out all our education programs: <http://www.mtavalanche.com/workshops/calendar>

BOZEMAN

[Women's 1-hour Avalanche Awareness Lecture](#). Wednesday, January 4, 6:30- 8 p.m. at REI.

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 7, with an all day field session Sunday, January 8. Advanced registration IS REQUIRED.

[1-hr Avalanche Awareness Lecture](#). Wednesday, January 11, 6:30-7:30 p.m at REI.

BIG TIMBER

[1-hr Avalanche Awareness Lecture](#). Tuesday, January 10, 7-8 p.m at Big Timber High School.

HELENA

[1-hr Avalanche Awareness Lecture](#). Thursday, January 12, 6:30-8:30 p.m at Exploration Works.

CODY, WYOMING

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.